Operation steps

1) Connect to the oscilloscope: Set the oscilloscope input impedance to 1MΩ, connect the probe BNC end to oscilloscope (make sure the oscilloscope is properly grounded);

2) Power the probe: Use standard adapter to power the probe. Indicator light turns green after power on;

3) Connect the DUT: make sure that the coil plug is inserted in place and the wire or pin under test passes through the appropriate position of the coil.

4) Power up the DUT.

5) After test, disconnect the circuit first, then unplug the coil.

6) Disconnect probe power.

Warranty

1) Micsig warrants the main body of this current probe for 1 year.
During the warranty period, Micsig will be responsible for free maintenance for any failure caused by the quality of the product under normal use.

2) Under the following circumstances, Micsig will refuse to provide maintenance services or charge for a fee:
   a. No packaging or anti-counterfeiting label.
   b. Anti-counterfeit label has been altered or blurred beyond recognition.
   c. Unauthorized disassembly, such as: changing wires, dismantling internal components, etc.
   d. No sales voucher or the content of sales voucher does not match the product.

Safety Precautions

※ Please use within safe voltage range.

※ The equipment connected to the probe must be reliably grounded.

※ The outer skin of the Rogowski coil should be inspected before use. If it is damaged, stop using it.

※ Before connecting the probe to the circuit under test, make sure the circuit under test is turned off.

※ Please use the adapter that comes standard with the probe.

Micsig

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Micsig

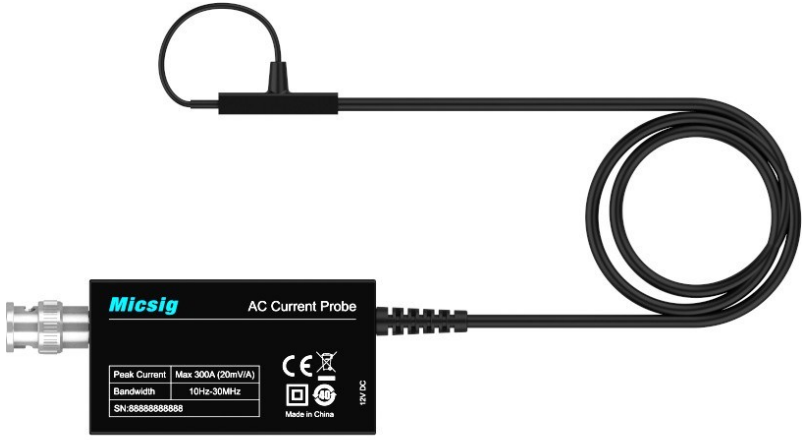
Rogowski AC Current Probe -- RCP series

Quick Guide

Overview

The RCP series Rogowski current probe measures AC currents up to 600Apk, max. bandwidth up to 30 MHz, delivers 1% typical accuracy, able to measure high-frequency, large current signals easily and accurately.

A 1.6mm thin, flexible, clip-around Rogowski coil allow user to conduct measurements without damaging the conductor and have no interference to the DUT.



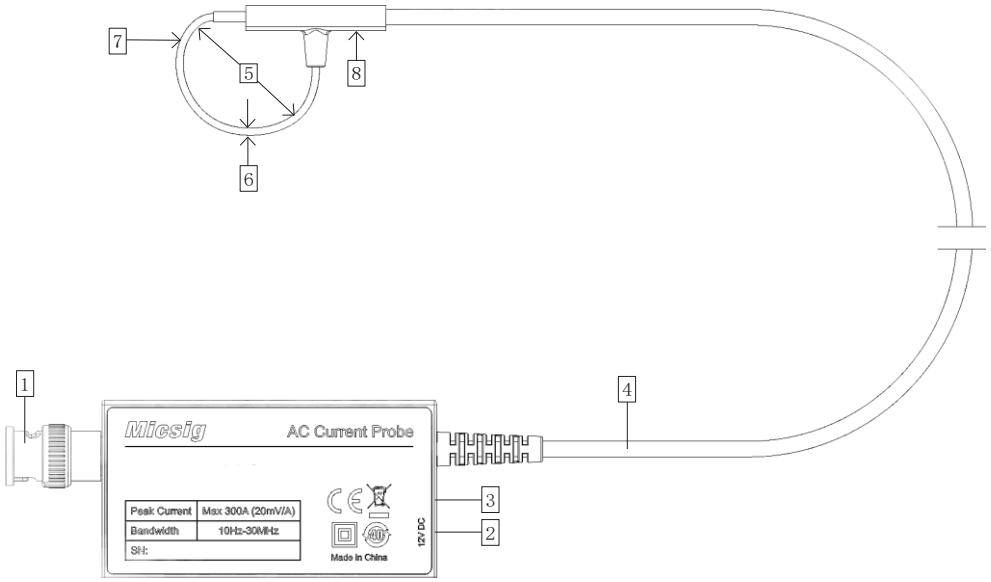
* Country specific adapter plug

Specifications

Model	RCP300-XS	RCP600-XS
Bandwidth	10Hz-30MHz	10Hz-30MHz
Measurement range	200mApk-300Apk	200mApk-600Apk
Output sensitivity	20mV/A（50X）	10mV/A（100X）
Accuracy (typical)	1%	1%
Output noise	＜ 18mVpp	＜ 12mVpp
Output interface	BNC	
Peak di/dt	20kA/μs	40kA/μs
Droop	9%/ms	6%/ms
Effect of conductor position	Within ±1% (deviation from center part)	
Offset voltage	<±1mV	
Peak coil isolation voltag	AC 2kVrms (1 min) (50Hz/60Hz) (Rogowski coil part only)	
Output impedance	High impedance	
Measurable conductor diameter	≤ 20mm	
Power supply	DC 12V	
Integrator size	70*40*17mm	
Wire length (integrator to Rogowski coil)	1.5m（customizable）	
Coil inner diameter	25mm（customizable）	
Coil circumference	80mm（customizable）	
Coil cross-section diameter	Appx. 1.6mm	
Interface	1MΩ BNC	
Environment		
Working temperature	Base unit : 0℃ - 55℃ Coil : -20℃ - 125℃	
Storage temperature	-30℃ -70℃	
Working humidity	≤ 85%RH	
Storage humidity	≤ 90%RH	

Appearance

The RCP series current probe are composed of two parts: Integrator and Rogowski coil.



1. **Output**: Standard BNC, compatible with all BNC oscilloscopes.
2. **Power supply**: DC 12V, adapter
3. **Power indicator:** Turn Green after powered on.
4. **Cable length:** 1.5m，from integrator to coil, customizable.
5. **Rogowski coil inner diameter:** 25mm， measures wires within 20mm in diameter.
6. **Rogowski coil cross-section diameter:** 1.6mm
7. **Rogowski coil circumference:** 80mm, customizable.
8. **Current direction:** When the current flows in the marked direction, the output is positive, otherwise it is negative.

Precautions

※ to ensure accuracy, the wire being measured should be positioned as much as possible between X and Y in the right diagram, where X is the center of coil and Y is the midpoint of the coil circumference.

※ to ensure accuracy, the wire should avoid the coil junction as much as possible during measurement (shadow area).

※ try to stay away from strong magnetic field interference sources as much as possible to avoid measurement errors.

※ the coil can be placed around the wire being measured to measure the interference signals in the surrounding area, to determine whether there is strong interference nearby.